

## **REMARKS**

Previously claims 92-137 were pending. In the instant amendment, claims 95, 100, and 113-123 have been canceled without prejudice to Applicants' right to pursue canceled subject matter in one or more related applications. Claims 102-112 have been amended. Upon entry of the instant amendment, claims 92-112 and 124-137 will be pending and under consideration.

### **I. AMENDMENTS TO THE CLAIMS**

Claims 95 and 100 have been canceled without prejudice as explained above.

Claims 113-123, drawn to non-elected subject matter, have been canceled without prejudice.

Support for the amendments to claims 102-112 is found in the specification, for example, at page 6, lines 3-9, page 11, line 30, to page 14, line 29, page 47, line 14, and claims 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, and 66 as originally filed.

It is believed that the amendments described above would, if entered, place the instant application in condition for allowance. No new matter has been added with these amendments. As these amendments are fully supported by the specification and claims as originally filed, entry thereof is respectfully requested.

As no new claims have been added, no claim amendment fee is believed to be due.

### **II. PRIORITY**

Applicants respectfully maintain that the instant application is a continuation of prior application no. 08/834,487, filed April 4, 1997, now U.S. Patent No. 6,140,305, which is a continuation-in-part of each of application no. 08/630,912 filed April 4, 1996, now abandoned, application no. 08/632,673, filed April 16, 1996, now U.S. Patent No. 5,712,098, and application no. 08/652,265, filed May 23, 1996, now U.S. Patent No. 6,025,130.

### **III. REJECTION OF CLAIM 136 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH**

Claim 136 stands rejected under 35 U.S.C. § 112, first paragraph, allegedly for lack of written description (the Patent Office refers to this rejection as a new matter rejection). The Patent Office initially states that the specification does not describe or discuss "monkey cell." The Patent Office acknowledges that the specification describes pig, sheep, goat, ape, orangutan, primate and the like (on page 72, lines 4-5 of specification). Next, the Patent

Office writes that the concept of “pig, sheep, goat, ape, orangutan, primate” does not appear to be part of the originally filed application and therefore constitutes new matter. It is Applicants’ understanding the Patent Office meant to allege that the concept of “monkey cell” does not appear to be part of the originally filed application, not “pig, sheep, goat, ape, orangutan, primate” that is discussed on page 72 of the specification. Applicants respectfully traverse the rejection.

The specification on page 49, lines 9-10, teaches useful host cell lines including, *inter alia*, the VERO cell line the source of which is the kidney of the African Green monkey. *See, e.g.*, ATCC web site list of cell cultures at <http://www.atcc.org/pdf/CellCatalog/CellTissue.pdf>. Therefore, Applicants respectfully submit that the specification fully supports the recited monkey cell of claim 136. Applicants respectfully request that the rejection of claim 136 under 35 U.S.C. § 112, first paragraph, be withdrawn.

**IV. REJECTION OF CLAIMS 102-112 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH**

Claims 102-112 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of written description. In short, the Patent Office alleges that a representative number of species have not been described by their complete structure. Without acquiescing to the propriety of the rejection, Applicants respectfully submit that the rejection is overcome in view of the amendments to claims 102-112. Accordingly, Applicants respectfully request that the rejection of claims 102-112 under 35 U.S.C. § 112, first paragraph, be withdrawn.

**V. REJECTION OF CLAIMS 95 AND 100 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH**

Claims 95 and 100 stand rejected under 35 U.S.C. § 112, first paragraph, for alleged lack of enablement. Applicants respectfully disagree and do not acquiesce in this rejection. Nevertheless to expedite prosecution, Applicants have canceled claims 95 and 100, without prejudice. Applicants respectfully submit that the rejection is moot in view of these cancellations, and respectfully request the withdrawal of the rejection of claims 95 and 100 under 35 U.S.C. § 112, second paragraph.

**VI. CLAIM REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

Claims 102-112 stand rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. In particular, the Patent Office alleges that the term “unique” is indefinite. The rejection is obviated in view of the amendments to claims 102-112. Applicants respectfully request that the rejection of claims 102-112 under 35 U.S.C. § 112, second paragraph, be withdrawn.

**VII. CLAIM REJECTION UNDER 35 U.S.C. § 102**

Claims 102-112 stand rejected under 35 U.S.C. § 102(b), allegedly as being anticipated by Hillier *et al.* (Genbank Accession Number R47761, May 18, 1995). Claims 102-112 stand rejected under 35 U.S.C. § 102(b), allegedly as being anticipated by Hillier *et al.* (Genbank Accession Number R07696, April 1995). Applicants respectfully submit that the rejections should be withdrawn for reasons explained below.

**A. Genbank Accession Number R47761**

Claims 102-112 stand rejected under 35 U.S.C. § 102(b), allegedly as being anticipated by Hillier *et al.* (Genbank Accession Number R47761, May 18, 1995). The sequence taught in Genbank Accession Number R47761 is identical in part to limited portions of SEQ ID NO:3 falling roughly between nucleotides 7250 to 7447 of SEQ ID NO: 3. Genbank Accession Number R47761 does not teach or suggest the nucleotide sequences of SEQ ID NO:3 recited in amended claims 102-112. For this reason, Applicants respectfully submit that Genbank Accession Number R47761 does not anticipate claims 102-112. Accordingly, Applicants respectfully request that the rejection of claims 102-112 under 35 U.S.C. § 102(b) be withdrawn.

**B. Genbank Accession Number R07696**

Claims 102-112 stand rejected under 35 U.S.C. § 102(b), allegedly as being anticipated by Hillier *et al.* (Genbank Accession Number R07696, April 1995). The sequence taught in Genbank Accession Number R07696 is identical in part to limited portions of SEQ ID NO:3 falling roughly between nucleotides 7141 to 7375 of SEQ ID NO:3. However, Genbank Accession Number R07696 does not teach or suggest the nucleotide sequences of SEQ ID NO:3 recited in amended claims 102-112. For this reason,

Applicants respectfully submit that Genbank Accession Number R07696 does not anticipate claims 102-112. Accordingly, Applicants respectfully request that the rejection of claims 102-112 under 35 U.S.C. § 102(b) be withdrawn.

In view that the claims are being examined with respect to elected species SEQ ID NO:3, whereas claims 102-112 also recite SEQ ID NOS: 1, 5 and 7, it is respectfully noted that, as explained in the specification on page 17 and shown in Figure 3 of the instant application, SEQ ID NOS: 1, 5 and 7 are identical to SEQ ID NO:3 except at base positions 5474 and/or 3512. Hence, the arguments presented above that SEQ ID NO:3 is not anticipated by Genbank Accession Number R47761 or R07696 also apply to SEQ ID NOS: 1, 5 and 7.

#### **VIII. DOUBLE PATENTING REJECTION**

Claims 92-112, 124-135 and 137 stand rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claim 1 of U.S. Patent No. 5,872,237.<sup>1</sup> Claims 92-112, 124-135 and 137 stand rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over Claims 1, 2, 4, 24-45 of U.S. Patent No. 6,025,130. The rejections should be withdrawn in light of the Terminal Disclaimers filed herewith. Applicants respectfully request that the rejections of claims 92-112, 124-135 and 137 under the judicially created doctrine of obviousness-type double patenting should be withdrawn.

#### **CONCLUSION**

In light of the above amendments and remarks, Applicants respectfully request that the Patent Office reconsider this application with a view towards allowance.

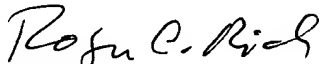
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<sup>1</sup> The Patent Office states that SEQ ID NO:20 has 100% identity over the entire length of SEQ ID NO:3 of the instant application. However, SEQ ID NO:3 contains a sequence corresponding the HH gene containing the 24d1 mutation, for instance, whereas SEQ ID NO:20 of U.S. Patent No. 5,872,237 corresponds to a sequence from a person unaffected with the 24d1 mutation. Thus, SEQ ID NO:20 does not have fully 100% identity over the entire length of SEQ ID NO:3.

No fees, other than those for filing two terminal disclaimers, are believed to be due with this Amendment and Response. However, the Commissioner is hereby authorized to charge any required fee(s) to Jones Day Deposit Account No. 503013 (order no. 043018-999087).

Respectfully submitted,

Date: July 14, 2004

  
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